

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**ORDER OF THE SUPERVISOR OF WELLS**

IN THE MATTER OF

THE PETITION OF DART OIL & GAS CORPORATION )  
FOR AN ORDER FROM THE SUPERVISOR OF WELLS )  
ESTABLISHING A 640-ACRE PRAIRIE DU CHIEN )  
FORMATION DRILLING UNIT CONSISTENT WITH ) ORDER NO. 14-2007  
SPECIAL ORDER NO. 1-86 BY COMPULSORY )  
POOLING ALL INTERESTS INTO THE UNIT. )

**OPINION AND ORDER**

**Background**

This case involves the Petition of Dart Oil & Gas Corporation (Petitioner). The Petitioner proposes to drill and complete a well for oil and gas exploration (the State Ellsworth and Killgore et al 1-24 well, hereinafter "1-24 well") within a drilling unit in the stratigraphic intervals known as the Glenwood Formation and/or Prairie du Chien Group. Under Special Order No. 1-86, the drilling unit size for a Prairie du Chien Group well is 640 acres. Since not all of the mineral owners within the proposed drilling unit have agreed to voluntarily pool their interests, the Petitioner seeks an Order of the Supervisor of Wells (Supervisor) designating the Petitioner as operator of a 640-acre drilling unit and requiring compulsory pooling of all tracts and interests within that geographic area for which the owners have not agreed to voluntary pooling.

**Jurisdiction**

The development of oil and gas in this State is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. MCL 324.61501 *et seq.* The purpose of Part 615 is to ensure the orderly development and production of the oil and gas resources of this State. MCL 324.61502. To that end, the Supervisor may establish drilling units and compulsorily pool mineral interests within said units. MCL 324.61513(2) and (4). However, the formation of drilling units by compulsory pooling of interests can only be effectuated after an evidentiary hearing 1996 MR 9, R 324.302 and R 324.304. The

evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq.* See 1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on September 11, 2007.

#### Preliminary Proceedings

A timely answer to the Petition and a Motion to Adjourn Hearing were filed by Sequoia Production, LLC ("Sequoia"). The Motion to Adjourn was denied by Order dated September 7, 2007. Sequoia withdrew its Answer on September 10, 2007 and did not appear at the hearing. A letter in opposition to the Petition, dated September 4, 2007, was served on Petitioner by Mr. Thomas Williams, a property owner outside the proposed unit. He expressed concern about the affect of drilling on the environment. Mr. Williams did not appear at the hearing. Although Mr. Williams' letter to Petitioner indicated a copy had been served on the Supervisor, no letter was received by the Supervisor.

#### FINDINGS OF FACT

Petitioner specifically requests that the Supervisor issue an Order that:

1. Requires compulsory pooling of all tracts and mineral interests within the proposed drilling unit that have not agreed to voluntary pooling;
2. Names Petitioner as operator of the proposed drilling unit and the 1-24 well; and
3. Authorizes Petitioner to recover certain costs and other additional compensation from the parties subject to the compulsory pooling order.

The Administrative Law Judge determined the Notice of Hearing was properly served and published. Petitioner is the only party to this case. The Supervisor designated the hearing to be an uncontested evidentiary hearing pursuant to R 324.1205(1)(b) and directed evidence be presented in the form of oral testimony.

In support of its Petition, the Petitioner offered the testimony of Adele L. Thompson and Daniel Orr. Ms. Thompson testified as a landman, and Mr. Orr was accepted as an expert in the area of geology, testifying as to petroleum geology and geophysics.

### I. Drilling Unit

The spacing of wells targeting the Glenwood Formation/Prairie du Chien Group is governed by Special Order No. 1-86. This Order establishes drilling units of 640 acres, more or less, consisting of four contiguous governmental-surveyed quarter sections of land in a square, with allowances being made for the size and shape of the government-surveyed quarter sections. Under Special Order No. 1-86, it is presumed that one well will efficiently and economically drain the entire unit of hydrocarbons. The Petitioner's proposed drilling unit is described as the SE 1/4 of Section 23, SW 1/4 of Section 24, NW 1/4 of Section 25, and NE 1/4 of Section 26, T19N, R11W, Ellsworth Township, Lake County.

Mr. Orr testified one well was previously drilled just off the structure. The Shell Ware 1-25 (P.N. 40617) located in the NE 1/4 of SE 1/4, Section 25 had shows of gas, but was declared a dry hole and plugged and abandoned. Based on the Shell Ware 1-25 and three seismic lines (examined by the Supervisor of Wells but not admitted into evidence), Mr. Orr prepared his structure contour map (Exhibit 5), showing all four quarter sections of the proposed unit underlain by portions of the structure. Mr. Orr compared the Shell Ware 1-25 with the successful Marathon Lowe 1-27 (P.N. 40556) located approximately 4 miles to the East. Mr. Orr's opinion was that if the 1-24 well can encounter additional structure, then the 1-24 well may be similar in nature to the Lowe 1-27.

I find that the proposed drilling unit is consistent with Special Order No. 1-86; and, as such, it is a proper drilling unit for the proposed well.

### II. Drilling Unit Operator

Exhibits 1, 3 and 4, sponsored by Ms. Thompson, show Petitioner owns or controls all but 82.42 net acres of mineral interests that are not subject to an oil and gas lease with the Petitioner. Of that total, 81.60 acres are not leased and an additional 0.82 acres are owned by the Michigan Department of Transportation. Direct lease applications for State of Michigan acreage have been filed with the Michigan Department of Natural Resources. That agency has advised Petitioner that the leases will be issued within 45 to 60 days, and the agency does not oppose the Petition. Given

the above, the Petitioner seeks to be designated as the operator of the 1-24 well. I find, as a Matter of Fact, the Petitioner is eligible to be designated operator of the 1-24 well.

### III. Compulsory Pooling

As found, the Petitioner has proposed a proper drilling unit for the Glenwood Formation/Prairie du Chien Group, but was unable to obtain the agreement of all mineral and working interest owners to gain its full control of the interests in such unit. The Petitioner may not produce a well on the drilling unit without first obtaining control of all of the oil and gas interests. In cases like this, it is necessary for the Petitioner to request compulsory pooling from the Supervisor. As discussed, a mineral or working interest owner who does not agree to voluntarily pool his, her, or its interest in a drilling unit may be subject to compulsory pooling. 1996 MR 9, R 324.304. The compulsory pooling of an interest must be effectuated in a manner that ensures "each owner... is afforded the opportunity to receive his or her just and equitable share of the production of the unit." Id. In addition to protecting correlative rights, the compulsory pooling must prevent waste. MCL 324.61502. An operator must first seek voluntary pooling of mineral interests within a proposed drilling unit prior to obtaining compulsory pooling through an order of the Supervisor.

All of the owners of oil and gas interests within the proposed drilling unit agreed to voluntarily pool their interests, with the exception of approximately 81.6 acres of private mineral rights. Ms. Thompson's affidavit (Exhibit 3) indicates Petitioner made repeated attempts to lease all of the mineral interest owners who had not yet voluntarily pooled their interests for the purposes of drilling the 1-24 well. However, despite those efforts, Ms. Thompson testified that the following mineral owners had not executed a lease or ratified a lease, as of the date of the hearing:

<u>Unleased Interest</u>	<u>Net Acres</u>
Clyde Ewell, Jr., Gail E. Ewell, Allen E. Ewell and Henry A. Ewell, as tenants in common	80.00
First National Acceptance Company	<u>1.60</u>
Total Unleased Acreage	81.60

Based on the foregoing, I find, as a Matter of Fact:

1. The Petitioner was able to voluntarily pool all but approximately 81.6 private mineral acres of the proposed 640-acre Glenwood Formation/Prairie du Chien Group drilling unit.
2. Compulsory pooling is necessary to form a full drilling unit, to protect correlative rights of unleased mineral owners, and to prevent waste by preventing the drilling of unnecessary wells.

Now that it has been determined compulsory pooling is necessary and proper in this case, the terms of such pooling must be addressed. When pooling is ordered, the owner of the compulsorily pooled lands or interests (Pooled Owner) is provided an election on how he or she wishes to share in the costs of the project. R 324.1206(4). A Pooled Owner may participate in the project, or in the alternative be "carried" by the operator. If the Pooled Owner elects to participate, he or she assumes the economic risks of the project, specifically, by paying his or her proportionate share of the costs or giving bond for the payment. Whether the well drilled is ultimately a producer or dry hole is immaterial to this obligation. Conversely, if a Pooled Owner elects not to participate, the Pooled Owner is, from an economic perspective "carried" by the operator. Under this option, if the well is a dry hole the Pooled Owner has no financial obligation because they did not assume any risk. If the well is a producer, the Supervisor considers the risks associated with the proposal and awards the operator compensation, out of production, for assuming all of the economic risks.

In order for a Pooled Owner to decide whether he or she will "participate" in the well or be "carried" by the operator, it is necessary to provide reliable cost estimates. In this regard the Petitioner must present proofs on the estimated costs involved in drilling, testing, completing, and equipping the proposed well. Petitioner's Authorization for Expenditure (AFE) form for the 1-24 well itemizes estimated costs to be incurred in the drilling, completing, testing, equipping, and plugging of the well (Exhibit 10). The estimated costs are \$1,872,375.00 for drilling; \$477,800.00 for completion; and \$747,300.00 for equipping. The total estimated producing well costs for the 1-24 well are \$3,097,475. Id. However, this estimate does not include the potential cost for a gas processing plant. Mr. Orr testified the well may produce gas which must be treated to

remove condensate prior to the gas being marketable. The cost of such a plant would be between \$500,000.00 and \$1,000,000.00. Such potential costs are not included under equipping costs on the AFE because it is not certain that the costs will be necessary. If costs are incurred for a gas plant, Petitioner asks that they be included under equipping costs, and that operator should be authorized to recover the Pooled Owner's proportionate share of the actual costs thereof, plus such additional funds as the Supervisor deems appropriate for assuming all the economic risk.

There is no evidence on this record refuting Petitioner's estimated costs. I find, as a Matter of Fact, the estimated costs are reasonable for the purpose of providing the pooled owners a basis on which to elect to participate or be carried. However, I find actual costs shall be used in determining the final share of costs and additional compensation assessed against a Pooled Owner.

The next issue is the allocation of these costs. Part 615 requires the allocation be just and equitable. MCL 324.61513(4). Petitioner presented a map as evidence showing that the structure substantially underlies each of the four quarter sections comprising the drilling unit (Exhibit 5). The Petitioner requests the actual well costs and production from the 1-24 well be allocated based upon the ratio of the number of net mineral acres in the tracts of various owners to the total number of net mineral acres in the drilling unit. Established practices and industry standards suggest this to be a fair and equitable method of allocation of production and costs. Therefore, I find, as a Matter of Fact, utilizing net mineral acreage is a fair and equitable method to allocate to the various tracts in the proposed drilling unit each tract's just and equitable share of unit production and costs.

The final issue is the additional compensation for risk to be assessed against a Pooled Owner who elects to be carried. The administrative rules under Part 615 provide for the Supervisor to assess appropriate compensation for the risks associated with drilling a dry hole and the mechanical and engineering risks associated with the completion and equipping of wells. 1996 AACRS, R 324.1206(4)(b). Mr. Orr testified, after review of well logs (Exhibits 6 and 7), seismic (examined by Mr. Orr, the Supervisor and the Supervisor's staff, but not admitted into evidence) and Prairie du Chien production and dry holes in Lake and Osceola Counties (Exhibit 11) that the 1-24

well is a very risky prospect. There is a dry hole within one mile of the 1-24 well (Shell Ware 1-25 well). The nearest production is approximately four miles away. Even if the well is completed, sometimes the well will not produce sufficient gas to have justified the completion. The economic success of the completion may not be known for many months, or years. Exhibit 11 shows there have been many Prairie du Chien dry holes in the vicinity. It appears the 1-24 well may be in the northwesterly flank of the Prairie du Chien trend.

Mr. Orr testified this well presents unusual risks related to equipping. There is no nearby existing infrastructure to serve the well, and to help carry the cost of the necessary equipment. Over a four-mile pipeline, with numerous road borings, will be necessary to reach the Lowe pipeline. At most, just one offset may be available to share the equipping costs. All of these factors show the 1-24 well to be a high-risk venture.

Petitioner did present substantial evidence to show that the risks associated with drilling a dry hole justify a 300 percent penalty. Moreover, past experience shows that drilling results are not always a reliable indicator of whether completing and equipping costs can be fully recovered from eventual production revenues. I find, as a Matter of Fact, that the risk of the proposed 1-24 well being a dry hole supports additional compensation from the Pooled Owners of 300 percent of the actual drilling costs incurred. In addition, the mechanical and engineering risks associated with the well support additional compensation of 200 percent of the actual completing, and 100 percent of the actual equipping costs incurred. Operating costs are not subject to additional compensation for risk.

Mr. Orr requested Petitioner be given 210 days to drill the well due to expected acquisition of State of Michigan leases and limited rig availability. I find 210 days to drill a Prairie du Chien well is reasonable.

### **CONCLUSIONS OF LAW**

Based on the findings of fact, I conclude, as a matter of law:

1. The Supervisor may compulsorily pool properties when pooling cannot be agreed upon. Compulsory pooling is necessary to prevent waste and protect the

correlative rights of the Pooled Owners in the proposed drilling unit. MCL 324.61513(4).

2. This Order is necessary to provide for conditions under which each mineral and working interest owner who has not voluntarily agreed to pool all of his, her, or its interest in the pooled unit may share in the production. 1996 AACRS, R 324.1206(4).
3. The Petitioner is an owner within the drilling unit and therefore is eligible to drill and operate the 1-24 well. 1996 AACRS, R 324.1206(4).
4. The Petitioner is authorized to take from each nonparticipating interest's share of production, the cost of drilling, completing, equipping, and operating the well, plus an additional percentage of the costs as identified in the Determination and Order section of this Order for the risks associated with drilling a dry hole and the mechanical and engineering risks associated with the completion and equipping of the well. 1996 AACRS, R 324.1206(4).
5. The applicable spacing for the proposed drilling unit is 640 acres, as established by Special Order No. 1-86.
6. The Supervisor has jurisdiction over the subject matter and the persons interested therein.
7. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 AACRS, R 324.1204.

#### **DETERMINATION AND ORDER**

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that compulsory pooling to form a 640-acre Glenwood Formation/Prairie

du Chien Group drilling unit is necessary to protect correlative rights and prevent waste by the drilling of unnecessary wells.

**NOW, THEREFORE, IT IS ORDERED:**

1. A 640-acre Glenwood Formation/Prairie du Chien Group drilling unit is established for the following area: SE 1/4 of Section 23; SW 1/4 of Section 24; NW 1/4 of Section 25; and NE 1/4 of Section 26, T17N, R12W, Ellsworth Township, Lake County, Michigan. All properties, parts of properties, and interests in this area are pooled into the drilling unit. This pooling is for the purpose of forming a drilling unit only and neither establishes a right, nor diminishes any independent right, of the Petitioner to operate on the surface or subsurface lands of a Pooled Owner.
2. Each Pooled Owner shall share in production and costs in the proportion that their net mineral acreage in the drilling unit bears to the total acreage in the drilling unit.
3. The Petitioner is named Operator of the 1-24 well. The Operator shall commence the drilling of the 1-24 well within 210 days of the effective date of this Order, or the compulsory pooling authorized in this Order shall be null and void as to all parties and interests. This pooling Order applies to the drilling of the 1-24 well only.
4. A Pooled Owner who is an unleased mineral owner shall be treated as a working interest owner to the extent of 100 percent of the interest owned in the drilling unit. Such a Pooled Owner is considered to hold a 1/8 royalty interest, which shall be free of any charge for the costs of drilling, completing, or equipping the well, or for compensation for the risks of the well, or operating the proposed well.

5. A Pooled Owner shall have ten days from the effective date of this Order to select one of the following alternatives and advise the Supervisor and the Petitioner, in writing, accordingly:

a. To participate, by paying to the Operator, within ten days of making the election, the Pooled Owner's share of the estimated costs for drilling, completing, testing, and equipping the well, or by giving bond for the payment of the Pooled Owner's share of such costs promptly upon completion; and authorizing the Operator to take from the remaining 7/8 of such Pooled Owner's share of production, the Pooled Owner's share of the actual costs of operating the well; or

b. To be carried, then if the well is put on production, authorize the Operator to take from the remaining 7/8 of the Pooled Owner's share of production:

(i) The Pooled Owner's share of the actual cost of drilling, completing, and equipping the well.

(ii) An additional 300 percent of the actual drilling costs, 200 percent of the actual completion costs, and 100 percent of the actual equipping costs attributable to the Pooled Owner's share of production, as compensation to the Operator for the risk of a dry hole.

(iii) The Pooled Owner's share of the actual cost of operating the well.

6. In the event the Pooled Owner does not notify the Supervisor in writing of the decision within ten days from the effective date of this Order, the Pooled Owner will be deemed to have elected the alternative described in ¶ 5(b). If a Pooled Owner who elects the alternative in ¶ 5(a) does not, within ten days of making their election, pay their proportionate share of costs or give bond for the payment of such share of such costs, the Pooled Owner shall be deemed to have elected the alternative described in ¶ 5(b) and the Operator may proceed to withhold and

allocate proceeds for costs from the Pooled Owners' share of production (the remaining 7/8 in the case of an unleased mineral owner) as described in 5(b)(i)(ii)&(iii).

7. For purposes of the Pooled Owners electing alternatives, the amounts of \$1,872,375.00 for estimated drilling costs (dry hole costs); \$477,800.00 for estimated completion costs; and \$1,747,300.00 for estimated equipping costs (including the maximum possible cost for compression) are fixed as well costs. Actual costs shall be used in determining the Pooled Owner's final share of well costs and in determining additional compensation for the risk of a dry hole. If a Pooled Owner has elected the alternative in ¶ 5(a) and the actual cost exceeds the estimated cost, the Operator may recover the additional cost from the Pooled Owner's share of production (the remaining 7/8 in the case of an unleased mineral owner). Within 60 days after commencing drilling of the well, and every 30 days thereafter until all costs of drilling, testing, completing, and equipping the well are accounted for, the Operator shall provide to the Pooled Owner a detailed statement of actual costs incurred as of the date of the statement; and all costs and production proceeds allocated to that Pooled Owner.
8. All Pooled Owners shall receive the following information from the Operator by no later than the effective date of the Order:
  - a. The Order;
  - b. The AFE; and
  - c. Each Pooled Owner's percent of charges from the AFE if the Pooled Owner were to choose option "a" in Paragraph 5, above.
9. A Pooled Owner shall remain a Pooled Owner only until such time as a lease is entered into with the Operator. At that time, terms of the lease shall prevail over the terms of this Order.

10. The operator shall not commence the drilling of the 1-24 well until it has demonstrated to the Supervisor that it has obtained a lease for the mineral acres owned by the State of Michigan.

11. The Supervisor retains jurisdiction in this matter.

12. The effective date of this Order is November 8, 2007.

DATED:

10/29/07

Thomas Godbold

THOMAS GODBOLD  
HEARINGS OFFICER  
Office of Geological Survey  
P.O. Box 30256  
Lansing, MI 48909